

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
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PCT

NOTIFICATION OF TRANSMITTAL OF
INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year)

18 APR 2005

Applicant's or agent's file reference

3402.1010002

IMPORTANT NOTIFICATION

International application No.

PCT/US03/36258

International filing date (day/month/year)

13 November 2003 (13.11.2003)

Priority date (day/month/year)

13 November 2002 (13.11.2002)

Applicant

NUVERA FUEL CELLS, INC.

FOREIGN DOCKETING

SRV 18 MAY 05

Completed By JAS

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Mail Stop PCT, Attn: IPEA/ US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

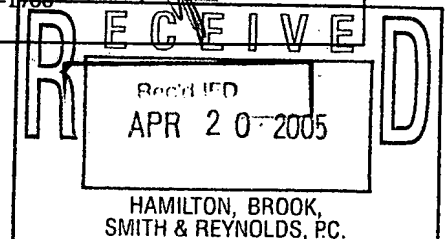
Form PCT/IPEA/416 (July 1992)

Authorized officer

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 3402.1010002	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US03/36258	International filing date (<i>day/month/year</i>) 13 November 2003 (13.11.2003)	Priority date (<i>day/month/year</i>) 13 November 2002 (13.11.2002)	
International Patent Classification (IPC) or national classification and IPC IPC(7): B01J 8/04, 8/02; C01B 3/34, 3/38, 3/40 and US Cl.: 422/177, 180, 211, 222; 423/650, 651, 652			
Applicant NUVERA FUEL CELLS, INC.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of ___ sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input checked="" type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 			
Date of submission of the demand 07 June 2004 (07.06.2004)		Date of completion of this report 11 April 2005 (11.04.2005)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Hien Tran Telephone No. (571) 272-1700 <div style="text-align: right;">Jean Proctor Paralegal Specialist</div>	

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/36258

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-11 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages 12 and 13, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the drawings:
pages 1-4, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/~~fig~~ NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/36258**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>4, 11-12</u>	YES
	Claims <u>1-3, 5-10</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-12</u>	NO
Industrial Applicability (IA)	Claims <u>1-12</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Please See Continuation Sheet

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/36258

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The drawings are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or content thereof:
In Figs. 4A-4B it is unclear as to what "26" stands for.

The description is objected to as containing the following defect(s) under PCT Rule 66.2(a)(iii) in the form or contents thereof:
On page 11, line 15 --or first housing-- should be inserted before "28" (note line 13); in line 16 --or second housing-- should be inserted before "30" (note line 13).

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/36258

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Claims 1-3, 5-8 lack novelty under PCT Article 33(2) as being anticipated by Le Gal et al (5,797,737).

Le Gal et al discloses a catalyst system and a method for providing a fast startup comprising a first, upstream portion 4 having at least a majority of a first catalyst having a first lightoff temperature, and a second, downstream portion 6 having at least a majority of a second catalyst having a second, higher lightoff temperature, wherein the difference between the first and second lightoff temperatures is at least about 25 °C.

Instant claims 1-3, 5-8 structurally read on the apparatus of Le Gal et al.

Claim 4 lacks an inventive step under PCT Article 33(3) as being obvious over Le Gal et al (5,797,737).

The apparatus of Le Gal et al is substantially the same as that of the instant claim, but fails to disclose the specific mixture for each catalyst.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an appropriate material for each catalyst, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Claims 1-3, 5-7 lack novelty under PCT Article 33(2) as being anticipated by Buswell et al (5,464,606).

Buswell et al discloses a catalyst system comprising a first, upstream portion having at least a majority of a first catalyst having a first lightoff temperature, and a second, downstream portion having at least a majority of a second catalyst having a second, higher lightoff temperature, wherein the difference between the first and second lightoff temperatures is at least about 25 °C (col. 3, lines 50-63; col. 4, lines 5-11, 34-36; Figs. 2-9).

Instant claims 1-3, 5-7 structurally read on the apparatus of Buswell et al.

Claim 4 lacks an inventive step under PCT Article 33(3) as being obvious over Buswell et al (5,464,606).

The apparatus of Buswell et al is substantially the same as that of the instant claim, but fails to disclose the specific mixture for each catalyst.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an appropriate material for each catalyst, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Claims 1-3, 5-10 lack novelty under PCT Article 33(2) as being anticipated by Clawson et al (6,126,908).

Clawson et al discloses a catalyst system and a method for providing a fast startup comprising a first, upstream portion having at least a majority of a first catalyst having a first lightoff temperature, and a second, downstream portion having at least a majority of a second catalyst having a second, higher lightoff temperature, wherein the difference between the first and second lightoff temperatures is at least about 25 °C (col. 8, line 59 to col. 11, line 40; Fig. 3).

Instant claims 1-3, 5-10 structurally read on the apparatus of Clawson et al.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/36258

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Claims 4, 11-12 lack an inventive step under PCT Article 33(3) as being obvious over Clawson et al (6,126,908).

The apparatus of Clawson et al is substantially the same as that of the instant claim, but fails to disclose the specific mixture for each catalyst.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an appropriate material for each catalyst, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

With respect to claims 11-12, at the time of the invention was made, it would have been obvious to one skilled in the art to select an appropriate time to add steam since such is no more than a design choice, and well within the knowledge of one skilled in the art.

Claims 1-12 meet the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----